Electric Choice Question 9: *What are the historical trends vis a vis other states regarding reliability, affordability, and environmental protection under the different regulatory structures Michigan has tried?*

Executive Summary

Michigan has tried three regulatory models within the last decade: (1) a fully regulated model prior to 2000, (2) unlimited retail access from 2000-2008, and (3) capped retail access at 10% of utilities' load from 2008-present.

1. **The challenges of investing for <u>reliability</u> under unlimited retail access to deregulated generation models are very real but have been masked by market conditions over the past decade**
   - An overbuild of generation capacity in the early 2000s, driven by high demand expectations and a reduction in load from the 2008-2009 recession, resulted in an oversupply of capacity. Nationally, and in Michigan, merchant generators experienced financial hardships following this period of overbuild. They now have taken a more cautious approach and appear unwilling to invest for future reliability without sufficient assurance that they will recover their investment through high enough market prices over an adequate time period. In the current low power price environment, deregulated generators have had to reduce investment in generation and some deregulated states are facing reliability concerns

2. **Unlimited retail access did not increase affordability**
   - Michigan rates relative to the national average fluctuate depending on natural gas prices, which are a large driver of rates in other states and therefore the national average. During periods of rising natural gas prices, such as from 2000 to 2008, states more reliant on natural gas-fired generation experienced increasing rates, which increased the national average relative to Michigan. Conversely, when gas prices are low, Michigan rates compare less favorably with the national average because there are fewer natural gas plants in Michigan. The 2000-2008 period was also the time of uncapped retail access in Michigan, but natural gas prices drove Michigan's position relative to other states, not retail access
   - Most Michigan customers chose to remain on regulated utility rates during the period of unlimited retail access (2000-2008). Even customers who chose retail access during part of that period returned to the utility when market power prices were high. This "back and forth" switching creates uncertainty for utilities. Uncertainty creates challenges to investing for reliability

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3. The retail access cap supported Michigan utilities' investment in reliable, clean energy for the future that includes the benefit of environmental protection

- The 10% retail access cap reduced the uncertainty of unlimited switching and supported Michigan utilities' investment in reliable, clean energy for the future that includes the benefit of environmental protection. Michigan utilities have invested billions since the 2008 energy legislation and plan to invest billions in the coming years in base infrastructure, environmental compliance, and renewable energy and energy efficiency

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1. The challenges of investing for reliability under unlimited retail access to deregulated generation models are very real but have been masked by market conditions over the past decade.

An overbuild of generation capacity in the early 2000s, driven by high demand expectations and a reduction in load from the 2008-2009 recession, resulted in an oversupply of capacity. Nationally, and in Michigan, merchant generators experienced financial hardships following this period of overbuild. They now have taken a more cautious approach and appear unwilling to invest for future reliability without sufficient assurance that they will recover their investment through high enough market prices over an adequate time period. (See Electric Choice Question 7 for more detail on how market conditions have masked the challenges of investing for reliability under deregulation)

Many large merchant power bankruptcies followed the overbuild of the early 2000s

ENRON
COVANTA ENERGY
NRG
MIRANT
PG&E Corporation. (NEGT)
NorthWestern Energy
CALPINE
AES (Eastern)
DYNEGY
EDISON MISSION GROUP

Generators have learned from the financial difficulties of the past and will not invest for reliability without sufficient assurance of recovery

"Investors' basic requirement is that they can expect future revenues to be high enough, often enough, to cover the costs of building a plant, including a return on capital commensurate with risk. Because the wholesale market conditions in ERCOT have not been favorable due to the fleet makeup and low electric prices, investment appears to have stalled. This lack of investment threatens resource adequacy in the near future"

Source: Company filings; Stern School of Business, "An Examination of Distress in the Electric Power Industry" April 2005 , http://www.stern.nyu.edu/cons/groups/content/documents/webasset/uat_024330.pdf; The Brattle Group, "ERCOT Investment Incentives and Resource Adequacy" June 2012, http://www.ercot.com/content/news/presentations/2012/Brattle%20ERCOT%20Resource%20Adequacy%20Review%20-%202012-06-01.pdf

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Michigan also saw an increase in new generation plants over this period of overbuild that was driven by high demand and retirement expectations. A few of the large Michigan merchant plants constructed in the 2000-2008 period have since faced financial hardships. For example, two plants, representing a substantial portion of the merchant generation built during that period, changed ownership due to bankruptcy. Another period of active merchant investment is unlikely in today's low power price environment given the reduction in investors' willingness to invest. This potentially endangers future reliability in Michigan in a high or unlimited retail access environment.

Plant	In-Service Date	Location	Capacity	Type	Related Bankruptcy
Covert	2003	Covert, MI	~1,200 MW	Natural Gas Combined Cycle	PG&E Corporation. (NEGT)
Renaissance Power	2002	Carson City, MI	~750 MW	Natural Gas Combustion Turbine	DYNEGY

Source: Press releases

In today's low power price environment, companies that have managed to avoid bankruptcy have curtailed investment in generation given weak power price outlooks and their inability to recover their investments. For example, Exelon, a company with deregulated generation across the nation, announced the removal of $2.3 billion in capital investments including $1.0 billion for nuclear-power upgrades and $1.3 billion for renewable projects as a result of current market conditions. Deregulated generators make these decisions based on financial concerns first and foremost – not reliability impacts. (See Electric Choice Question 6 response for detailed examples of deregulated generators reducing investment)

Texas, Maryland, and New Jersey, deregulated states, are now facing reliability concerns and both Maryland and New Jersey have implemented extreme regulatory measures to cause investment in new generation. (See Electric Choice Question Response 7 for detail on the regulatory measures taken)

The challenges of investing for reliability in a deregulated market will become more apparent as we try to invest in new generation in the future given retirements of aging coal plants, a transition toward new and cleaner generation plants, and the return of load growth.

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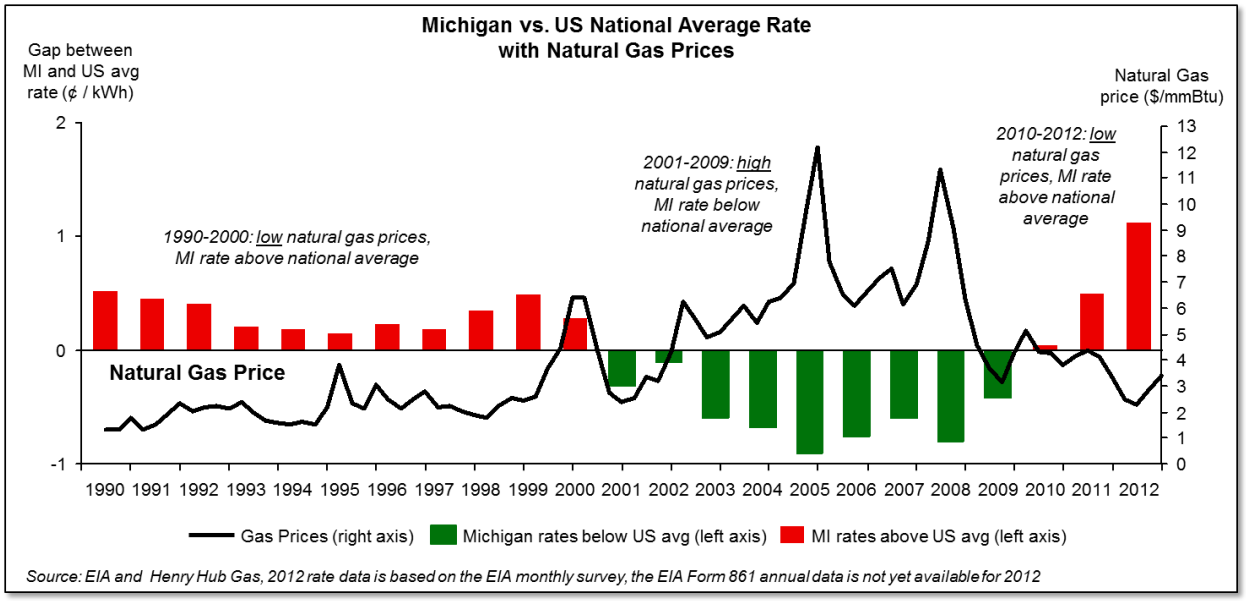
2. Unlimited retail access did not increase affordability.

Michigan rates relative to the national average fluctuate depending on natural gas prices, which are a large driver of rates in other states and therefore the national average. During periods of rising natural gas prices, such as from 2000 to 2008, states more reliant on natural gas-fired generation experienced increasing rates, which increased the national average relative to Michigan. Conversely, when gas prices are low, Michigan rates compare less favorably with the national average because there are fewer natural gas plants in Michigan. The 2000-2008 period was also the time of uncapped retail access in Michigan, but natural gas prices drove Michigan's position relative to other states, not retail access.

Michigan's absolute rate changes over the past few years have been driven largely by capital investments in clean, reliable electricity, and by declining electric load. (See Additional Question 14 for the drivers of Michigan's absolute rate changes)



Most Michigan customers chose to remain on regulated utility rates during the period of unlimited retail access (2000-2008). Even customers who chose retail access during part of that period returned to the utility when market power prices were high. This "back and forth" switching creates uncertainty for utilities. Uncertainty creates challenges to investing for reliability.

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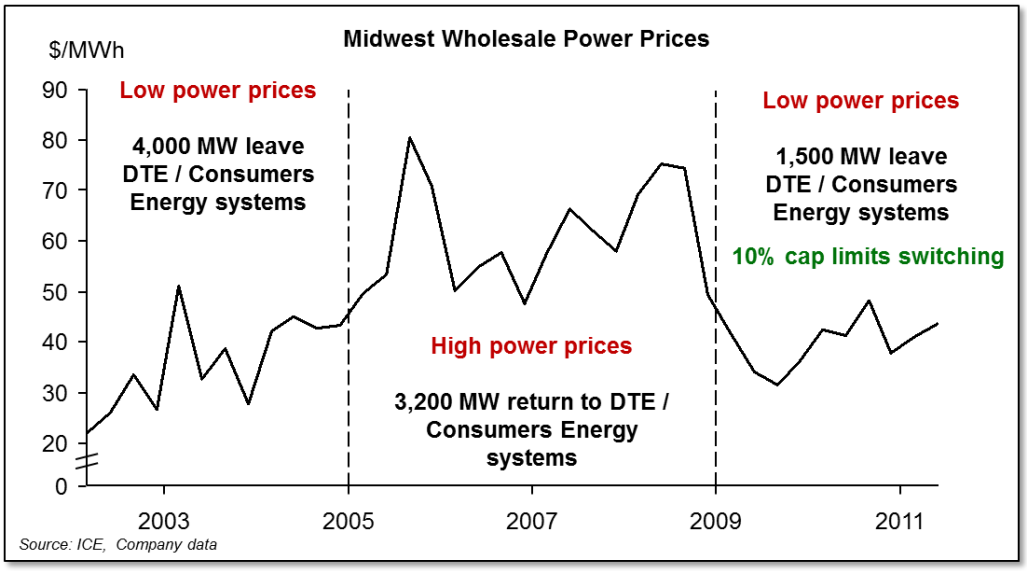

4,000 MW is equivalent to ~6 large power plants with 30 year lives – this switching creates uncertainty for long-term planning and investment

3. The retail access cap supported Michigan utilities' investment in reliable, clean energy that includes the benefit of <u>environmental protection</u>.

The 10% cap reduced the uncertainty of unlimited switching and supported Michigan utilities' investment in reliable, clean energy for the future that includes the benefit of environmental protection. Michigan utilities have invested billions since the 2008 energy legislation and plan to invest billions in the coming years in base infrastructure, environmental compliance, and renewable energy and energy efficiency. A few examples of this are DTE's investments in Ludington Pumped Storage, emissions controls at Monroe Power Plant, and new wind farms such as Echo Wind Park. Consumers Energy's major investments include the planned Thetford gas plant, Lake Winds and Crosswinds Energy Park, environmental compliance at Campbell and Karn plants, and reliability improvements.

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DTE Electric future investment plans

Base Infrastructure

- Investments to ensure reliability of plants and distribution systems
- $4.7 billion planned 2013-2017

Environmental Compliance

- Investments to meet evolving environmental requirements
- $1.2 billion planned 2013-2017

Renewable Energy & Energy Efficiency

- Renewable generation to meet 10% Michigan standard by 2015
- $500 million planned 2013-2017

Source: DTE Investor Presentation, April 2013

An increase in the 10% cap would unfairly shift the costs of paying for this clean, reliable energy to the remaining full-service utility customers, primarily residential and small business, while a small number of customers avoid these fixed costs. (See Electric Choice Question 26 for more detail)